

Family list

2 family members for:

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- 1 1,4-disubstituted piperidine derivatives  
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- 2 1,4-DISUBSTITUTED PIPERIDINE DERIVATIVES  
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English Abstract

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B14

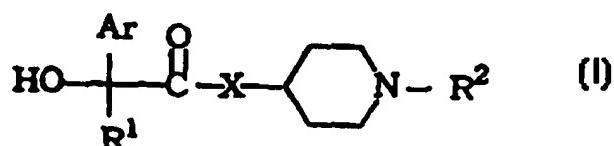
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(71) 出願人 (米国を除くすべての指定国について) 萬有製薬株式会社 (BANYU PHARMACEUTICAL CO., LTD.)[JP/JP] 〒103 東京都中央区日本橋本町2丁目2番3号 Tokyo, (JP)		
(72) 発明者; および (75) 発明者/出願人 (米国についてのみ) 七谷義己(TSUCHIYA, Yoshimi)[JP/JP] 大沢浩一(OHSAWA, Hiroyasu)[JP/JP] 川上久美子(KAWAKAMI, Kumiko)[JP/JP] 大脇健二(OHWAKI, Kenji)[JP/JP] 錦辺 優(NISHIKIBE, Masaru)[JP/JP] 〒300-26 茨城県つくば市大久保3番地 萬有製薬株式会社 つくば研究所内 Ibaraki, (JP) 野本貴史(NOMOTO, Takashi)[JP/JP] 〒360-02 埼玉県大里郡妻沼町大字西城810番地 萬有製薬株式会社 開発研究所内 Saitama, (JP)		添付公開書類 国際調査報告書

## (54) Title: 1,4-DISUBSTITUTED PIPERIDINE DERIVATIVES

(54) 発明の名称 1,4-ジ置換ピペリジン誘導体

## (57) Abstract

1,4-Disubstituted piperidine derivatives represented by general formula (I) and pharmaceutically acceptable salts thereof, wherein Ar represents heteroaryl having one or two heteroatoms selected from the group consisting of nitrogen, oxygen and sulfur and optionally fused to aryl or benzene (wherein each hydrogen on the aryl and heteroaryl rings may be substituted by lower alkyl, halogeno, lower alkoxy, amino or hydroxymethyl); R<sup>1</sup>



represents C<sub>3-14</sub> cycloalkyl having one or two hydroxyl groups on the ring; R<sup>2</sup> represents heteroarylalkyl having one or two heteroatoms selected from the group consisting of nitrogen, oxygen and sulfur and optionally fused to saturated or unsaturated aliphatic C<sub>3-15</sub> hydrocarbon, aralkyl, arylalkenyl or benzene (wherein each hydrogen on the aralkyl, arylalkenyl and heteroarylalkyl rings may be substituted by lower alkyl, halogeno, lower alkoxy, amino or hydroxymethyl); and X represents O or NH. Because of having a selective muscarine M<sub>1</sub> receptor antagonism, these compounds are useful as safe remedies or preventives with little side effects for respiratory diseases such as asthma, chronic respiratory obstruction and pulmonary fibrosis; urologic diseases in association with urination disorders such as frequent urination, urgency of micturition and urinary incontinence; and digestive diseases such as irritable bowel syndrome and convulsion or motor hyperactivity of digestive tracts.